

The Achievement Gap in Montana: Features and Policy Prescriptions

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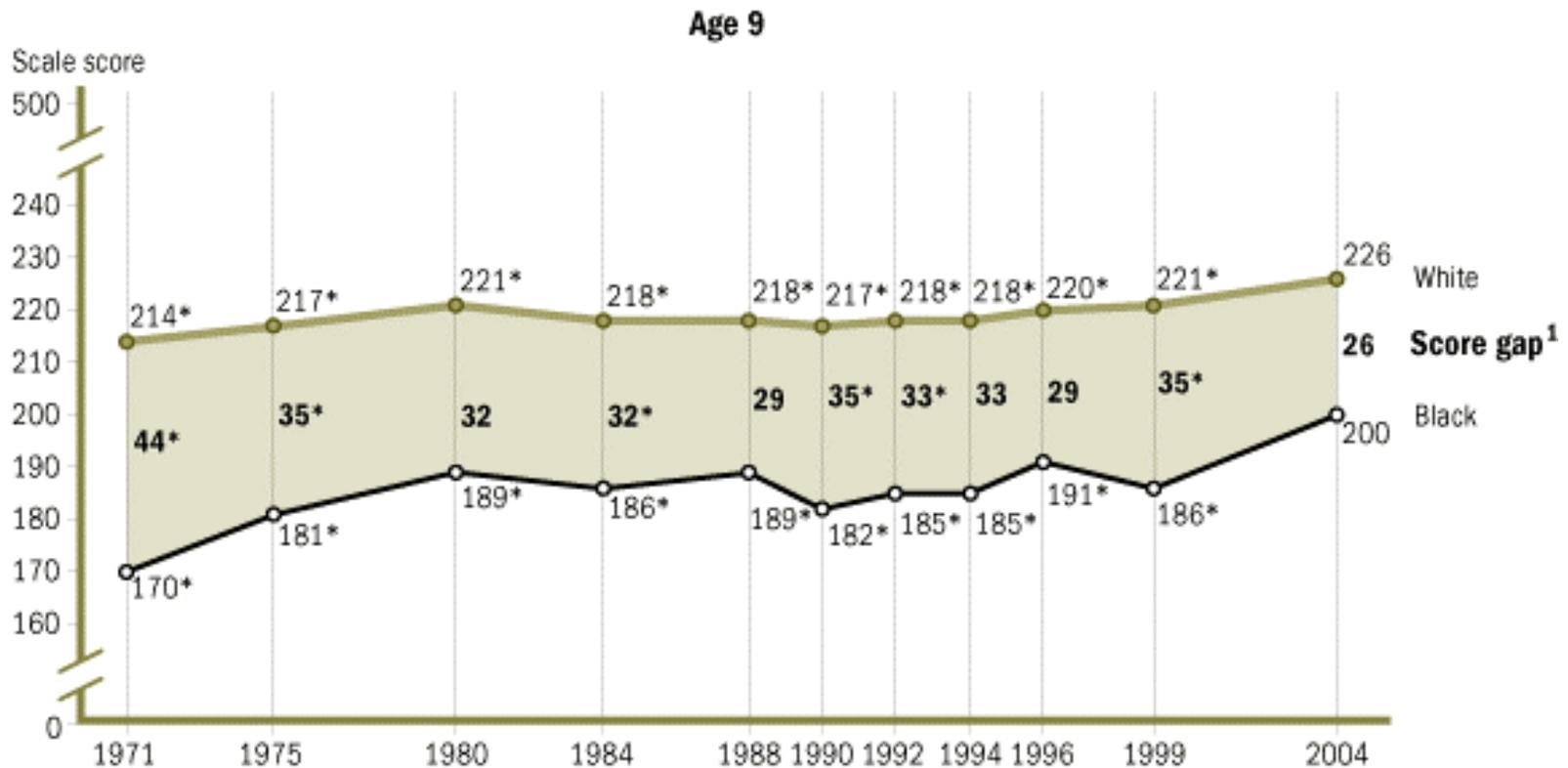
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Achievement Gap

- Discrepancies in scores between subgroups
 - Male and Female
 - Poor and Wealthy
 - American Indian and White

Does It Exist?

Black/White Achievement Gap from 1971 – 2004
National Assessment of Educational Progress (NAEP)

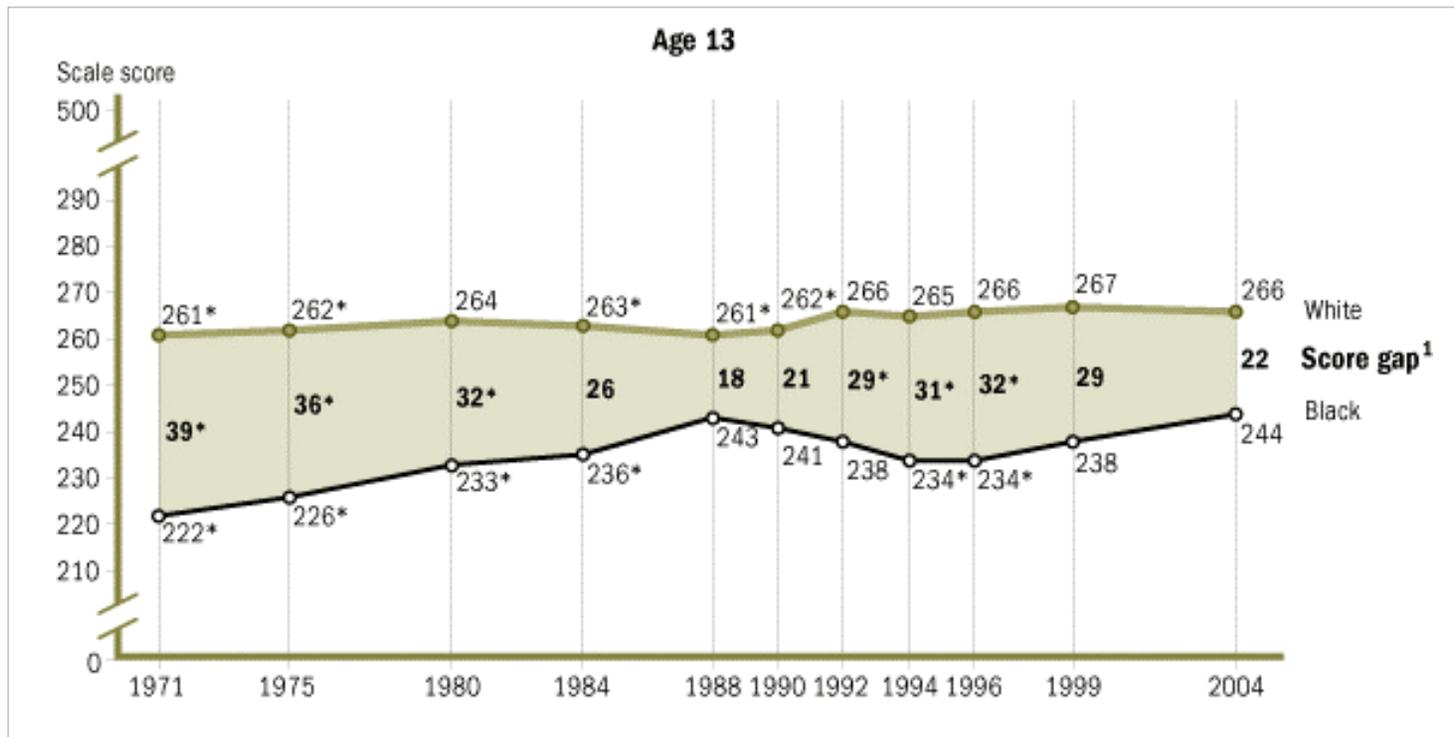


The Nation's Report Card, <http://nces.ed.gov/nationsreportcard/ltr/results2004/sub-reading-race.asp>

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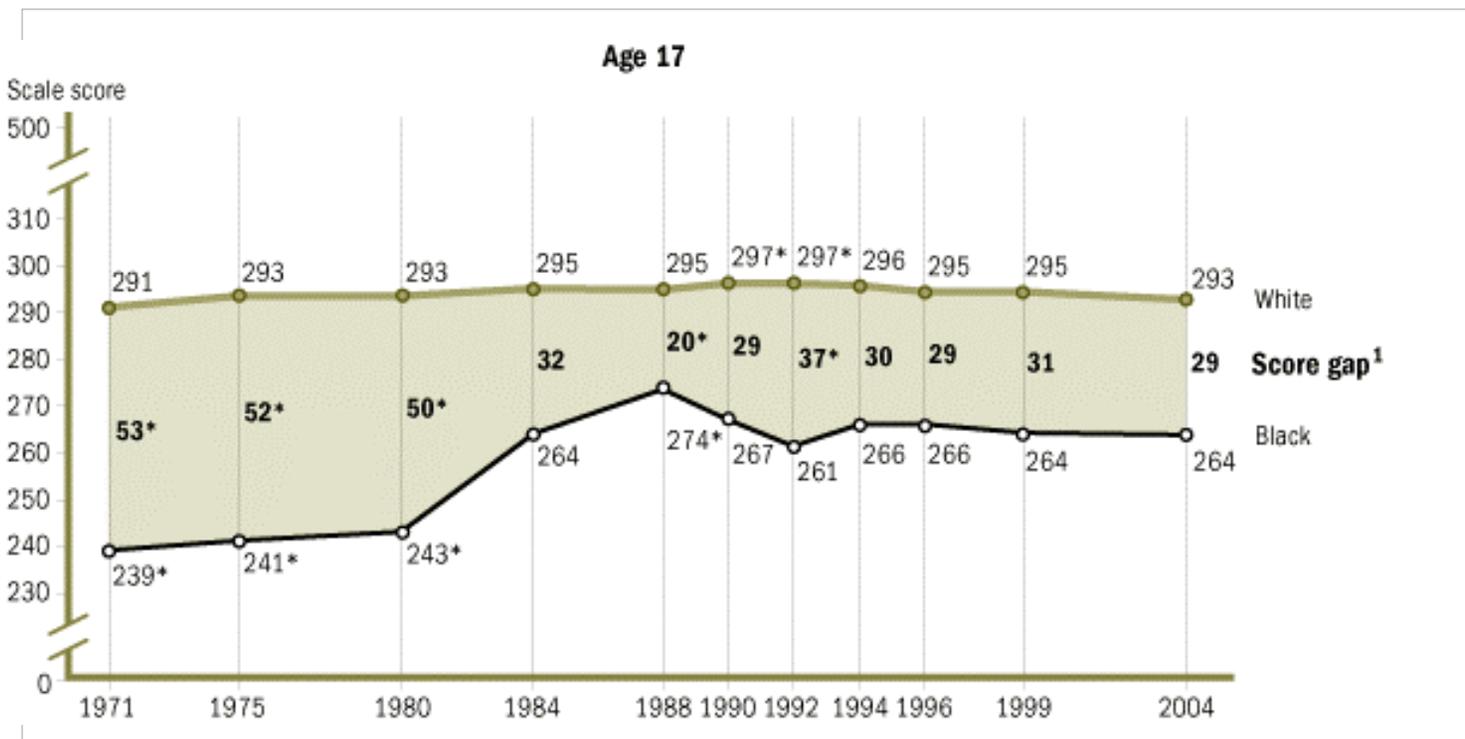


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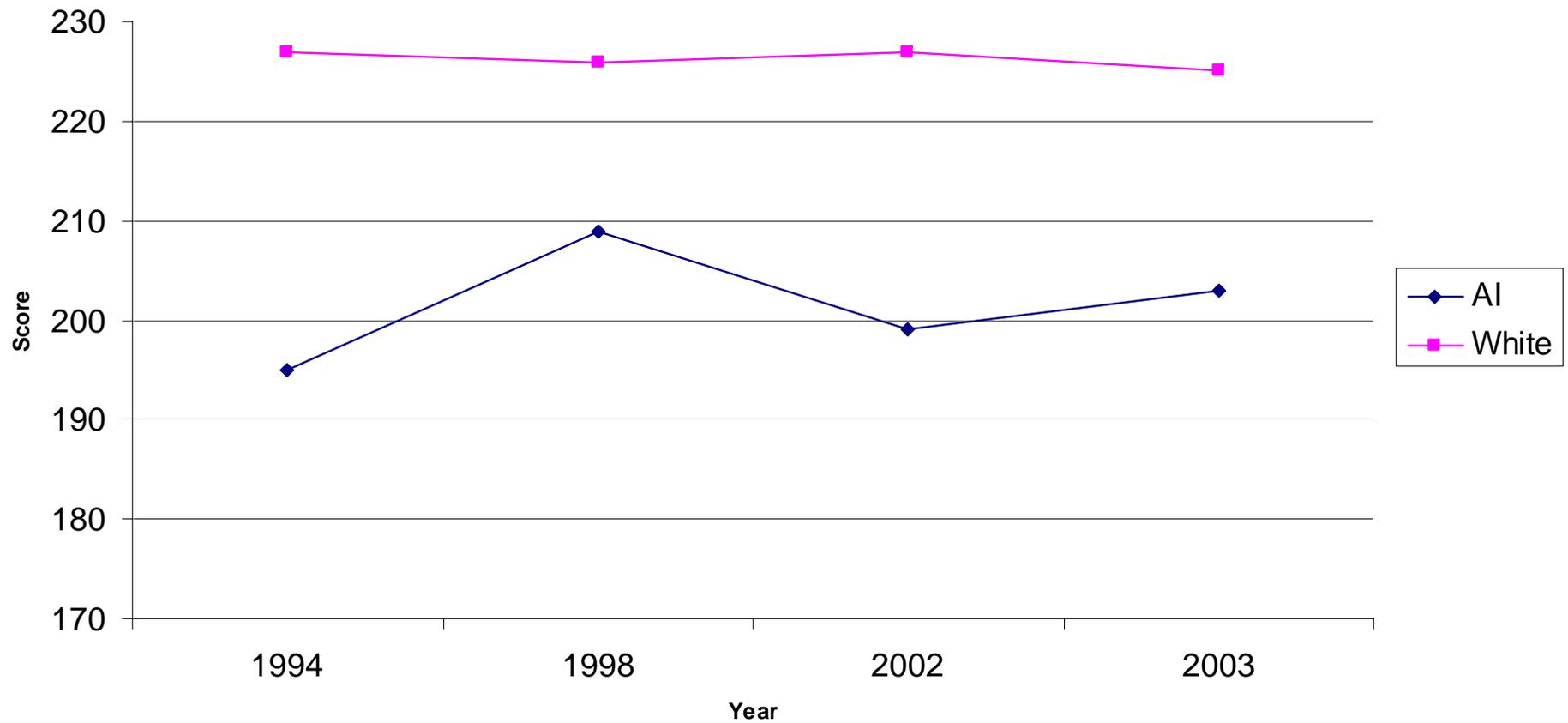
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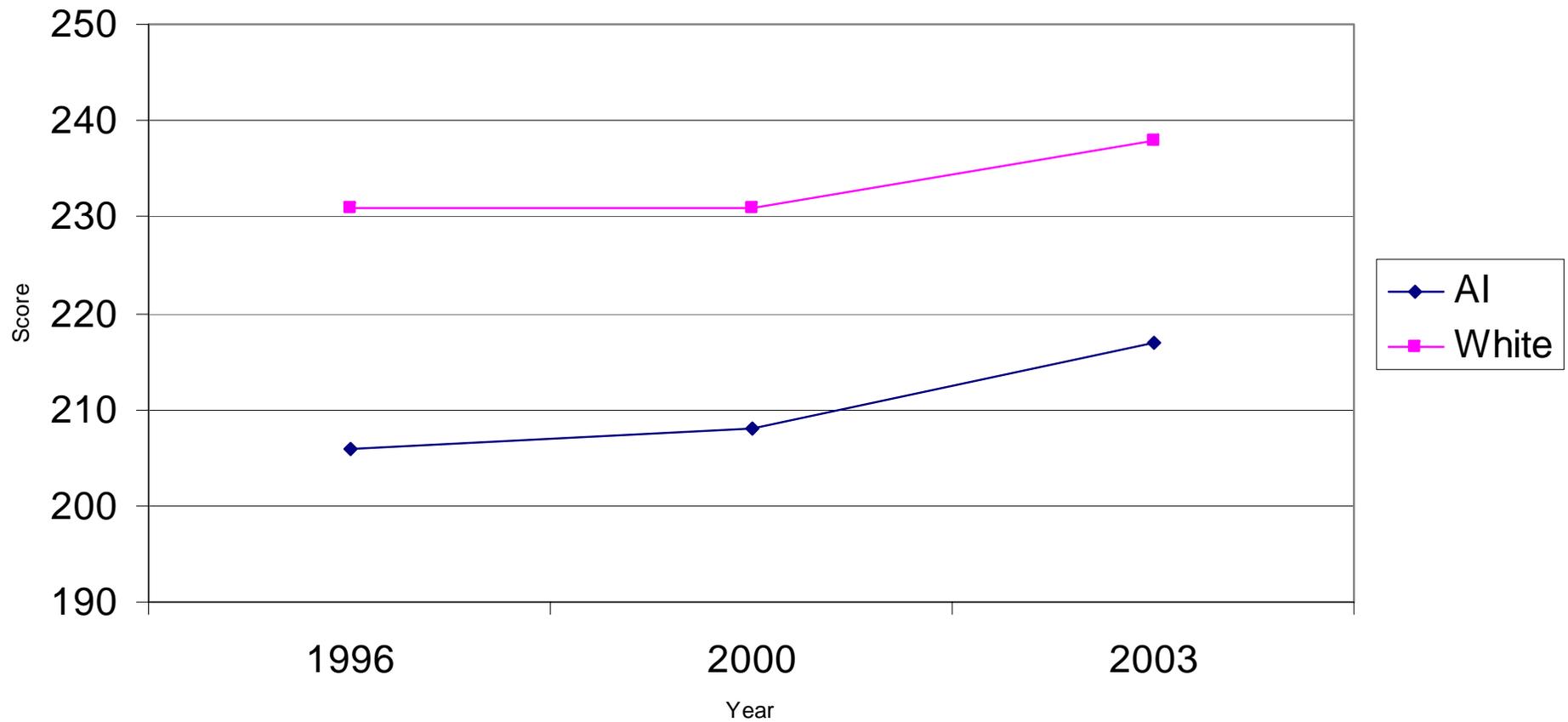
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Montana's Performance on NAEP 4th Grade Reading



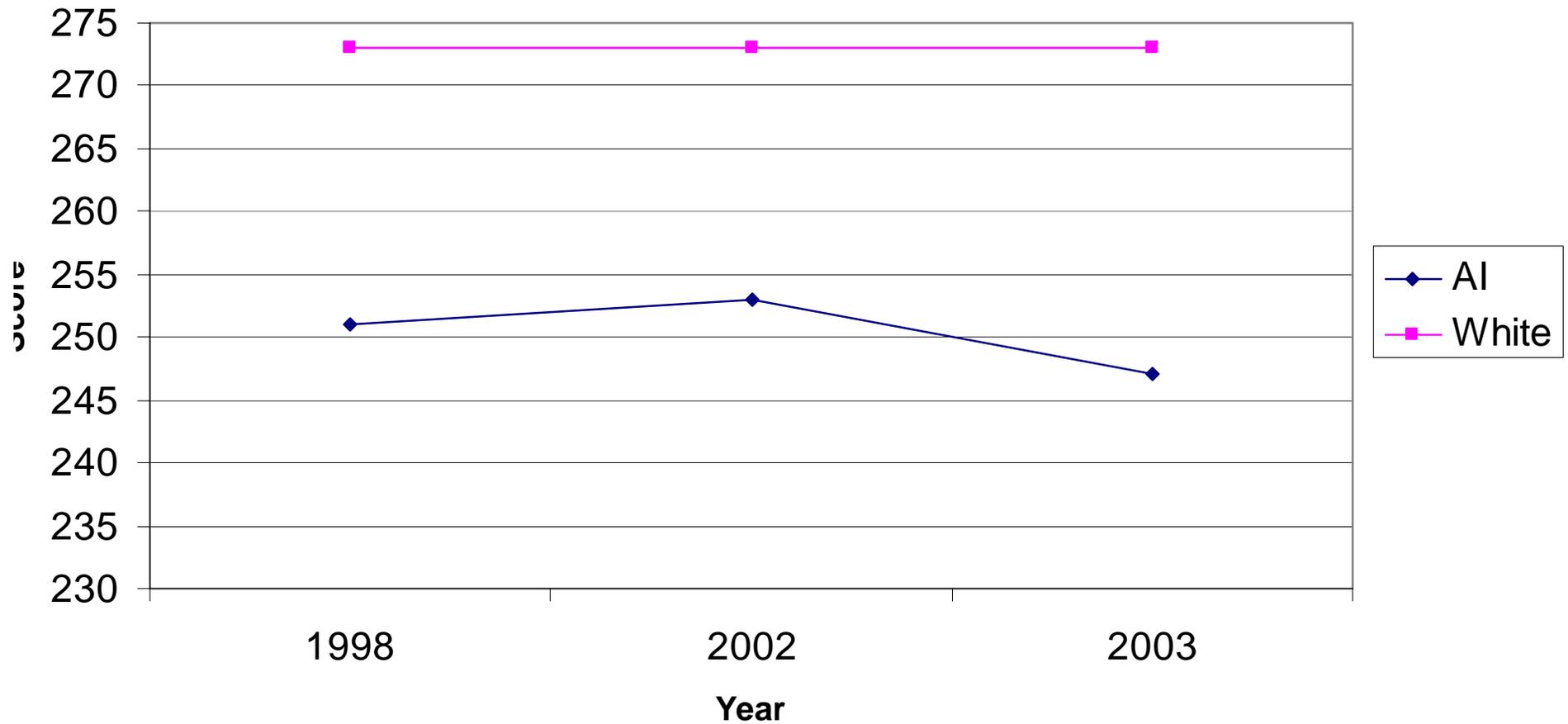
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Montana's Performance on NAEP 4th Grade Math



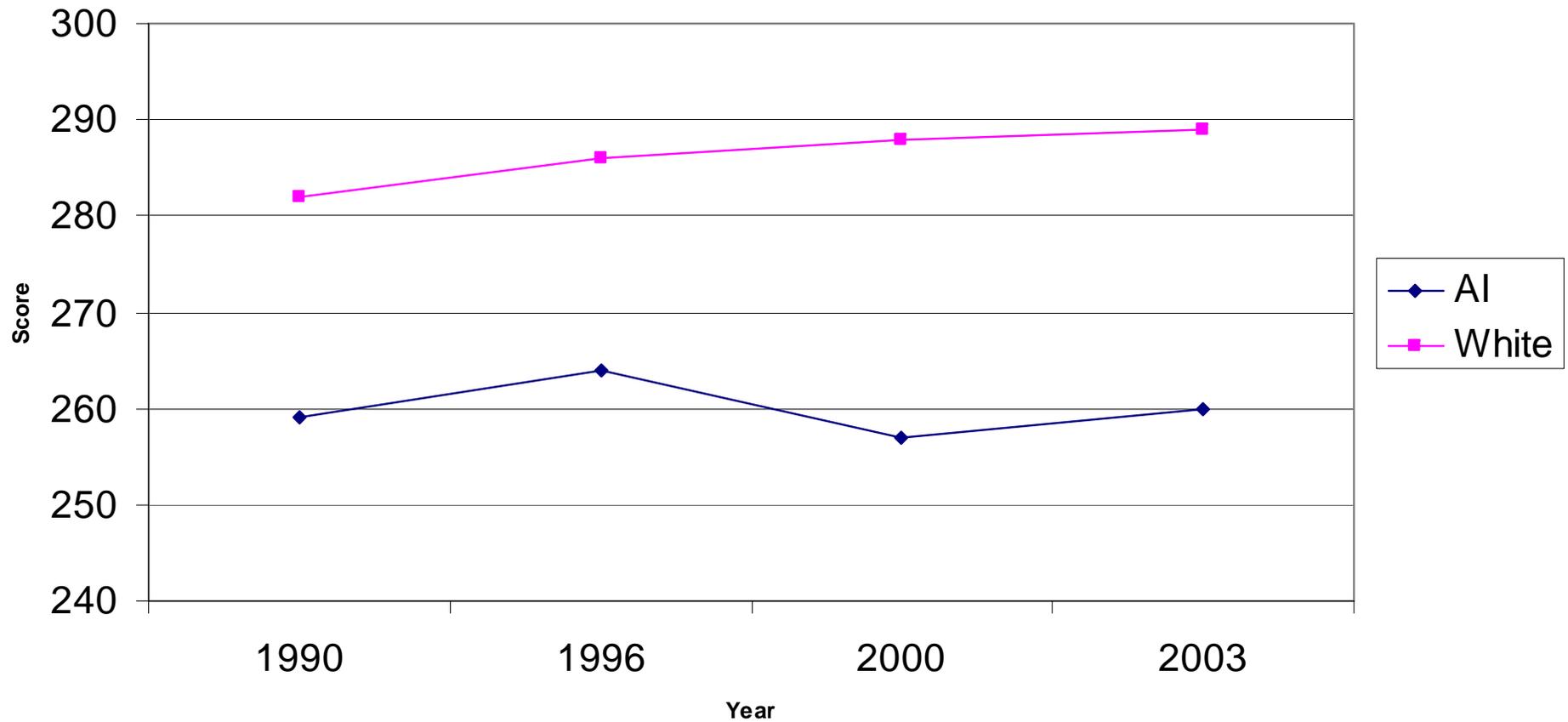
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Montana's Performance on NAEP 8th Grade Reading



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Montana's Performance on NAEP 8th Grade Math



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2004 MontCAS

Subject	American Indian	White	Gap
Math	25%	66%	41%
Reading	32%	61%	29%

2005 MontCAS

Subject	American Indian	White	Gap
Math	38%	63%	25%
Reading	28%	72%	44%

Study Question

Can we find examples of schools that demonstrate success on multiple measures of achievement for American Indian students?

Study Design

Examine Multiple Factors

2003-2005 MontCAS Performance

2000-2005 Iowa Test of Basic Skills Performance

Attendance data

Drop-out data

Expulsion and suspension data

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Study Methodology

Schools were rank-sorted in each category

Rank values were summed

Lowest score was taken as measure of success

School	Tests	Dropouts	Total
Washington	2	1	3
Adams	1	3	4
Jefferson	3	2	5

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What are the features of the achievement gap?

Our results

Schools that performed well were primarily in Montana's population centers, particularly Helena, Great Falls, and Billings

Notable exceptions were schools in Arlee, Polson, and Havre

Appreciable socioeconomic differences exist between the district environment of high-performing schools and low-performing schools

What are the features of the achievement gap?

Our results (cont.)

Non-appreciable differences exist between the SES of American Indian students in high-performing vs. low-performing schools

There is a strong “school effect” for American Indian students (matches well with other research findings), or there are strong benefits to diversity (also well-supported in the research literature).

What are the features of the achievement gap?

- The SES factors examined were
 - Educational attainment
 - Home Ownership
 - Migration
 - Per Capita Income
 - Household Income
 - Persons per household
 - Poverty
 - Population of American Indians in Schools (most sig.)

SOCIOECONOMIC CHARACTERISTICS – 2000 CENSUS

	American Indian or Alaska Native Population Only									
	Montana	White non-Hispanic	AI & AN State	Blackfeet	Crow	Flathead	Fort Belknap	Fort Peck	Northern Cheyenne	Rocky Boy's
Population	902,195	807,823	36,459	8,507	5,165	6,999	2,790	6,391	4,029	2578
Median household income	33,024	33,821	22,520	23,557	28,125	26,449	21,302	18,449	21,667	22,240
Average Household size	2.44	2.39	3.34	3.57	4.18	3.04	3.61	3.49	3.96	4.23
Households below poverty	15%	13%	38%	35%	35%	34%	39%	49%	50%	41%
25 years and older with at least a bachelor's degree	24%	25%	11%	9%	10%	11%	10%	8%	8%	10%
Home ownership	69%	71%	50%	55%	71%	59%	54%	51%	52%	41%

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What are some *more* features of the achievement gap?

-  Largest Positive Achievement Gap
-  Largest Negative Achievement Gap
-  Smallest Achievement Gap
-  Exemplary School on Two Measures

READING ELEMENTARY 2005 (MontCAS)

School Code	American Indian % Proficient+	White % Proficient+	Gap
32	41.90%	72.70%	30.80%
143	58.30%	69.20%	10.90%
1624	82.40%	83.80%	1.40%
545	54.50%	78.40%	23.90%
151	55.60%	81.80%	26.20%
632	52.40%	94.10%	41.70%
1495	60.00%	80.50%	20.50%
642	64.00%	66.70%	2.70%
638	41.40%	69.20%	27.80%
639	56.80%	63.60%	6.80%
776	60.00%	86.20%	26.20%
1022	57.80%	81.80%	24.00%
1603	54.50%	75.00%	20.50%
1265	69.20%	66.70%	-2.50%
1560	70.00%	80.80%	10.80%
Average	58.59%	76.70%	18.11%

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MATH ELEMENTARY 2005 (MontCAS)

School Code	American Indian % Proficient+	White % Proficient+	Gap
32	9.30%	42.40%	33.10%
143	37.50%	38.50%	1.00%
1624	64.70%	72.10%	7.40%
545	54.50%	56.80%	2.30%
151	33.30%	54.50%	21.20%
632	38.10%	85.30%	47.20%
1495	53.30%	75.60%	22.30%
642	52.00%	41.70%	-10.30%
638	24.10%	46.20%	22.10%
639	48.60%	50.00%	1.40%
776	40.00%	67.20%	27.20%
1022	35.60%	90.90%	55.30%
1603	18.20%	58.30%	40.10%
1265	46.20%	50.00%	3.80%
1560	40.00%	63.60%	23.60%
Average	39.69%	59.54%	19.85%

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READING HIGH SCHOOL 2005 (MontCAS)

School Code	American Indian % Proficient+	White % Proficient+	Gap
37	27.90%	76.60%	48.70%
134	55.80%	71.20%	15.40%
1464	57.10%	72.20%	15.10%
425	54.50%	50.80%	-3.70%
547	44.40%	78.30%	33.90%
1450	50.00%	62.90%	12.90%
633	45.20%	72.20%	27.00%
643	36.40%	41.70%	5.30%
640	43.60%	53.10%	9.50%
661	57.70%	67.30%	9.60%
1547	38.50%	76.80%	38.30%
1432	33.30%	76.10%	42.80%
1592	41.20%	71.00%	29.80%
1023	20.00%	57.90%	37.90%
1040	20.00%	63.30%	43.30%
1103	50.00%	71.70%	21.70%
1250	55.60%	71.20%	15.60%
1251	73.90%	73.10%	-0.80%
1628	36.40%	75.30%	38.90%
Average	44.29%	67.51%	23.22%

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MATH HIGH SCHOOL 2005 (MontCAS)

School Code	American Indian % Proficient+	White % Proficient+	Gap
37	8.10%	63.80%	55.70%
134	27.90%	49.60%	21.70%
1464	38.10%	55.20%	17.10%
425	36.40%	47.70%	11.30%
547	44.40%	67.40%	23.00%
1450	35.70%	60.30%	24.60%
633	22.60%	65.60%	43.00%
643	18.20%	20.80%	2.60%
640	30.80%	43.80%	13.00%
661	46.20%	64.00%	17.80%
1547	15.40%	67.50%	52.10%
1432	16.70%	70.00%	53.30%
1592	23.50%	56.60%	33.10%
1023	5.70%	57.90%	52.20%
1040	26.70%	40.00%	13.30%
1103	50.00%	61.80%	11.80%
1250	44.40%	59.10%	14.70%
1251	47.80%	68.60%	20.80%
1628	22.70%	60.60%	37.90%
Average	29.54%	56.86%	27.32%

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Do these features provide guidance in crafting policy?

LESSONS LEARNED

Integration may work **BAD IDEA**

Economic development factors significantly; not all social problems are school problems

Schools who commit to culturally-relevant pedagogy perform better

CAVEAT: Local control, from research literature, appears to be important determinant of success

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What policy responses might work?

<u>Strategy</u>	<u>Effects</u>
Change structure of education finance	
Work to show gap is not genetic	
Heterogeneous grouping	
Changes to class size / school size	

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What policy responses might work?

<u>Strategy</u>	<u>Effects</u>
Teacher competency	
Desegregation	
Pre-school/Full day kindergarten	
Culturally relevant pedagogy	

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What policy responses might work?

<u>Strategy</u>	<u>Effects</u>
Credit recovery	
Extended year	
Expectations and supports	
Accountability programs	
Technology	

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Where are we headed?

Observations at schools at all levels of achievement should be conducted. There are many research questions that can be asked:

What are the characteristics of the teachers?

What professional development is offered?

How does the principal foster growth?

What role does data play in developing their school plan?

Where are we headed?

In upcoming weeks, you can expect:

Reviews of literature

Comprehensive report on schools providing stronger experiences for American Indian students

Plan for school visitations

Answers to your questions regarding the achievement gap

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Thanks

My *own* students

Susan Ockert

Joyce Silverthorne

Joe Kolman

Leanne Kurtz, Susan Byorth Fox

Harvard Research librarians

The Quality Schools Interim Committee

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